

LANDSAT MONTHLY UPDATE

September 2002

The U.S. Geological Survey, under authority established by Presidential Decision Directive NSTC-3, manages the Landsat Program.

Program News

IGS Metadata

IGS Metadata from Canada, Australia, South Africa, China, Argentina, Thailand, and Europe continue to be archived successfully. As of September 30, 2002 there were 12,809 L7 IGS subintervals archived for 212,858 Landsat 7 Worldwide Reference System (WRS) scenes.

Staffing Contract at the EROS Data Center

A contract estimated at \$154 million has been awarded October 1, 2002 to SAIC, of San Diego, Calif., for operation of the U.S. Geological Survey's EROS Data Center, in Sioux Falls, S.D. This is one of the largest service contracts within the Department of the Interior.

The five-year contract is for archiving, processing and distributing remote-sensing and related earth science data; design and development of information management systems; research; and the operation of the computer and photographic libraries.

New Landsat Web Site

The Landsat Program has released a new Web presence at the current URL, <http://landsat7.usgs.gov/>. The new site combines the content from the current Landsat Program and the Landsat calibration websites and reorganizes it to simply navigation and provides faster access. Feedback on the new site will be welcome. Please send your comments to edcweb@edcwww.cr.usgs.gov.

Landsat Sales

In fiscal year 2002 (October 1, 2001-September 30, 2002) The USGS EROS Data Center sold over 23,000 Landsat products, representing over \$10 million in sales of Landsat 1-5, 7 data.

Technical News

Data Validation

The two Canadian stations, Gatineau and Prince Albert, along with the China station all provided the USGS with L0Rp for revalidation purposes. These three station's data were found to be of equivalent quality to the corresponding USGS data and have passed their biannual revalidations successfully.

The second series of L1G data have been requested from the IGS and will be used for further testing of the USGS procedures and methodology. At this time L1G data have been received from four stations. More products have been confirmed to be en route from other International stations.

Delta-i Orbit Inclination Adjustment

Periodic adjustments to the Landsat satellite's orbit inclination need to be made. One cause for adjustment is force created by the Earth's equatorial bulge. This bulge imparts a force on any satellite orbit with a non-zero inclination and, in order to maintain the Landsat sun-synchronous orbit, the inclination must be tightly controlled (to less than 0.01 degree.)

Delta-i burn operations will begin on Day 281 (October 8th) and will be similar to those executed last year. Two burns will be executed, each approximately 700 seconds in duration. Each burn will be preceded by a 90.5 degree Yaw slew in order to orient the thrust jets nearly perpendicular to the orbit velocity vector. A return slew will also be executed after each burn. Two orbits will separate the burns and be used to confirm spacecraft health and safety prior to executing the second slew-burn-yaw combination.

As a consequence of the slew-burn-slew operations, the ETM+ cold focal plane will heat above normal operating temperatures and must be cooled. During the cool down operations, calibration imaging will take place. This combined calibration/calibration operation is scheduled to last approximately 40 hours (from ETM+ cooler door OPEN) before normal imaging operations may resume.

Note: An image advisory message was sent to the IGSs on September 30th with specific non-imaging times.

Landsat 7 BMOC Status

The bMOC, located in Columbia, MD is the Landsat Program's fallback control center for Landsat 7 in the event operations at Goddard Space Flight Center are impaired.

On August 20th the Landsat 7 Flight Operations Team (FOT) achieved another milestone in the establishment of a backup Mission Operations Center (bMOC). The August 20th testing verified the ability of the Landsat7 bMOC to support Space Network/TDRSS contacts. Two events with Landsat 7 were completed utilizing the TDZ and TDW spacecraft, which successfully demonstrated that both Multiple Access (MA) and Single Access (SA) events could be supported from the bMOC.

During the month of September the FOT, working in conjunction with EDC/LGS, refined the ftp process of transferring products to/from bMOC - LGS and re-tested LGS operationally with the satellite to verify the final bMOC configuration was successful. Ongoing testing with the Polar ground stations (Alaska and Norway) is ongoing.

The bMOC will have the ability to interface with the IGSs utilizing the same electronic product exchange (different IP address).

Meetings

LGSOWG Meeting

The #31 Landsat Ground Stations Operations Working Group (LGSOWG) meeting will be held in Matera, Italy, October 14-18, 2002.

Satellite Business Partners Workshop

A one-day workshop, sponsored by the U. S. Geological Survey, will be held November 15, 2002 for the Satellite Business Partner community (current and prospective). The workshop will be held at the Adams-Mark Hotel in Denver, Colorado, site of the Pecora 15/Land Satellite IV conference, and will cover USGS plans for the Satellite Business Partners Program, changes to the distribution or pricing of data, and new data sets or delivery systems that may assist the Satellite Business Partners. Secondly, the USGS is interested in hearing Satellite Business Partners concerns and views of market changes, again, with the view of assisting the Satellite Business partners. Contact Ronald Parsons (Parsons@usgs.gov) or, by telephone (605-594-6557.)

The Landsat monthly update is an informal communication tool, prepared monthly and distributed electronically to USGS Landsat partners, to provide information about Landsat activities and related topics of interest. Comments, corrections, and queries may be directed to Ronald Beck, USGS Landsat team, at the following e-mail address: beck@usgs.gov.

U.S. Department of the Interior
U.S. Geological Survey